



**Quick Start Guide
Maxi and Dual Maxi
Display**

Notice:

For full user documentation for the Micronet family and for other useful information please refer to the CD-ROM supplied with your product, or to the raymarine website at www.raymarine.com.

Key Features

Simple to Install

Solar Powered: your Maxi Display is powered for life by the sun. The innovative technology uses so little current and the power supply is so efficient, that the Maxi display is independent from your boat's batteries.

Wireless: your Raymarine displays communicate by wireless, they can be sited anywhere on your boat without disruption or cables.

Dedicated to Performance

Optimise your start: the Maxi Display's powerful functions for Distance and Speed-Trim to the line, Line Bias and Race Timer help you get the best possible start.

Enhance your performance with the built-in function for Wind Shift and indicators for Accelerations and Trends.

Simplify your tidal navigation with the Maxi Display's Set, Drift, Turn and Course to Steer functions.

True Wind correction: the Maxi Display incorporates sophisticated correction technology to maximise the accuracy of True Wind calculations. *(Airflow setup is not available on the Dual Maxi)*

Custom Pages allow you to display data such as target boat speed from your on-board computer on your Maxi Display. *(Not available on the Dual Maxi)*

Easy to Manage

Automatic data selection: the innovative Auto Leg function allows the display to automatically show the information you need for each leg of the course.

Page Hiding means you can avoid data duplication on different displays, minimising the time to select the pages you really need.

Wireless Remote control: your Maxi display can be controlled and configured from anywhere in the boat using a Raymarine Remote display.

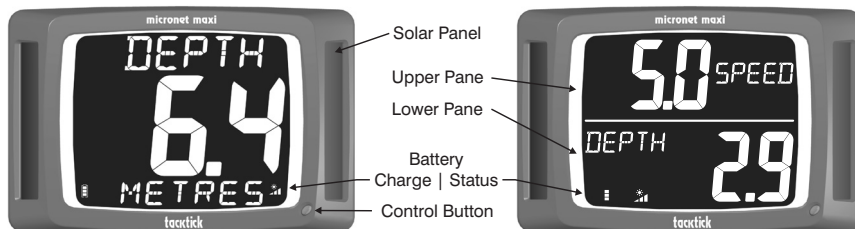


Excellent visibility

The large, high contrast LCD gives the Maxi Display a wide angle of view and ensures excellent visibility from anywhere on your boat.

The black background minimises disturbance to your night vision, and the red/amber option allows you to choose the backlight colour of your display at night.





Display Operation




Terminology

All references to “Maxi Display” refer to both the Maxi and the Dual Maxi displays, unless specifically stated.


Remote Control

Your Maxi Display is designed to be controlled using a Raymarine Remote Display. See the Remote Display user guide for details of remote control mode. All references to the , ,  or  buttons refer to the appropriate button on the Remote Display.

 if a Remote Display is not available, your Maxi Display can be operated using the control button, see the full user guide for details.

Chapters and Pages



The Maxi Display’s data screens are organised in a sequence of Chapters, each containing Pages of related information. See page 6 for a diagram of all the data pages available.


The  button scrolls through the chapters.


The  and  buttons scroll forward and back between pages.

When a new chapter is selected, the data page last selected for that chapter is displayed.




Power Management and Battery Life

Power status is shown by two icons: battery level  and charge rate . The more bars showing, the higher the battery level/rate of charge.

 If the internal battery is fully charged, the charge rate icon will always indicate low.

 **Artificial light WILL NOT recharge the battery.** Placing your Maxi Display close to an artificial light will seriously damage the display. Only recharge in natural daylight.

Backlighting

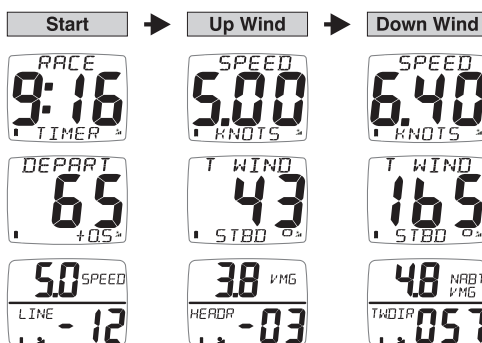
To adjust the display backlighting press and hold , then use  and  to select from OFF, or levels 1,2,3.

Automatic Pages

You probably want a different page shown on your Maxi Display for each leg of the course. The Maxi display makes this easy by providing a special page: the AUTO LEG page. Using this feature, you can programme your Maxi Display to show exactly the information you require for each leg of the course without the need to manually change pages at each mark rounding.

For example, consider a boat with three Maxi Displays on a mast bracket. The diagram shows a typical selection of pages for different legs of the course.

Programming these pages into the Autoleg page before the race automatically shows the selected information for the appropriate leg of the course; leaving the tactician free to concentrate on the race.

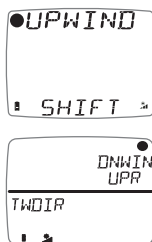


To programme the Autoleg page:

Use your Remote Display to select your Maxi Display for remote control.






It is a good idea to programme the remote control display list of your Remote Display to show your Maxi Displays in the same order as their physical location on the boat. See the Remote Display user guide.




Press and hold  to enter setup mode in the Autoleg chapter.

Use  and  to select a leg.

Then use , followed by  and  to select the data page to be displayed.

A further press of  confirms the selection.

When finished, press and hold  to exit setup mode.



you can select Simple or Advanced mode for configuring the legs. See the full user guide for further details.



using the Page Hiding function to eliminate duplicate pages across displays reduces the time and key presses required if a manual reconfiguration of the data displayed becomes necessary. See the full user guide for details.

Optimising your start with the Maxi Display

The Maxi display provides three functions to help you get a great start:

The Depart page



Approaching the start, it is vital to know your distance from the line and whether you will arrive before or after the signal.


The large digits show your distance from the nearest point on the line in distance units or boat-lengths. A negative distance shows that the boat is to windward of the start line, not that the boat is on the course side of the line; i.e. for a downwind start, a negative distance shows you are approaching the line correctly.

The small digits show the change in speed (in speed units) required for you to arrive at the line at the signal; a negative value means that you must decrease your speed to avoid arriving early.



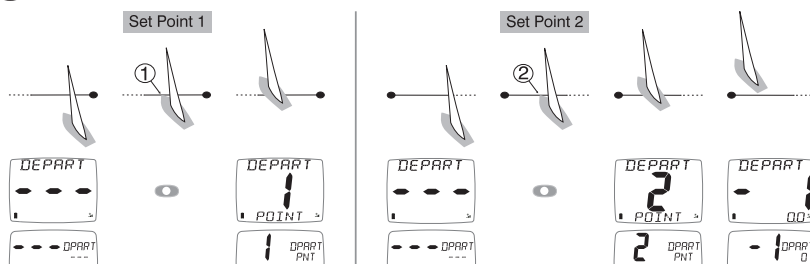
These calculations rely on GPS data, so they are subject to error, particularly as the distance from the line becomes small. Do not rely on this information to determine if you are over the line at the start. Rather, you should use the data to help optimise your approach to the line.

To initialise the Depart page:




With the depart page displayed, approach one end of the start line as if starting; press  when the bow touches the line. A popup page shows that the first line position has been captured. Repeat at the other end of the line. The popup shows the second line position has been captured.



Set your points as close to the ends of the line as possible.



To modify the start line points:

To modify one of the points, press  while at the correct location; the popup will show that position 1 has been captured. Pressing  or  will allow you to set the captured location to position 2. or to discard it (-).



The position is captured at the moment  is pressed.

Start Line Bias



When racing there is often a favoured end to the line. If you start at the favoured end, you are upwind and therefore ahead of a boat starting at the other end of the line. The larger the Line Bias angle, the more you can gain from starting at the favoured end.



Your Maxi Display can calculate and display the Line Bias angle and the favoured end of the line.

To initialise the line bias display

Go to the **Line Bias** page, Sail directly along the start line, then press . The Line Bias angle and the favoured end of the start line are displayed.

The line bias display is continually updated taking account of wind shifts that may occur during the pre-start period.

Start Timer



The most convenient way to operate the race timer is to use the Timer Page of the Remote Display. Once started, the countdown is available on all displays. See the Remote Display user guide for details of operating the race timer.



Optimising the calculation of True Wind

The wind angle and speed measured by a masthead wind unit is subject to error caused by aerodynamic effects on the sails.

If not corrected, these errors give rise to problems when sailing (false shifts in Wind Direction when tacking or gybing and false differences in True Wind Speed when flying the spinnaker).

Traditionally these errors have been corrected by a complex and time consuming calibration process, but the Maxi Display has changed all that.

Raymarine has made two breakthroughs:

- Sophisticated built in corrections that dramatically reduce the errors for the majority of boats.
- An intuitive one step process to easily enter a fine tuning adjustment.

For more information see the full Maxi Display user guide.

For full calibration information, including airflow correction, see the Calibration Guide.



Airflow setup is not available on the Dual Maxi.

Acceleration and Trends

The Speed, SOG, VMG-WIND and VMG-WPT pages can be configured to show Trend or Acceleration indicators.



Trends and Acceleration are not available on the Dual Maxi.

Arrows to the right indicate increasing speed, arrows to the left indicate decreasing speed. The number of arrows indicates the magnitude of the change; more arrows means a greater acceleration or a faster trend.

The sensitivity of the trend and acceleration indication can be configured in setup, see the full user guide.




Acceleration mode



The arrows indicate whether the boat is accelerating or decelerating; they are not shown when the speed is stable

Trend mode



The arrows show whether the overall speed trend is upwards or downwards from a reference speed. By default, the reference speed is calculated as a rolling average of the actual speed. Pressing  will set the reference speed equal to the current boat speed (or SOG, VMG as appropriate); the new reference speed will briefly be shown flashing and may be edited using  and .

Sailing in Tidal Waters

In tidal conditions, your boat's Course Over the Ground (COG) and Speed Over the Ground (SOG) may differ considerably from the heading of the boat and the speed through the water shown by the speed sensor.

The Maxi Display provides the following functions to make your tidal navigation easier.

Turn



It is often difficult to assess the course to steer to keep on the direct track to a waypoint. Your Maxi Display automatically indicates when the course you are steering is taking you off the direct track to your waypoint. The direction and required angle of turn is displayed.



Course



Used in similar circumstances to the Turn page, the Course page shows the course to steer to track directly to the waypoint.



Drift and Set



Because the boat is not always moving directly in the direction of its compass heading you need to know the direction (SET) and the speed (DRIFT) by which the boat is being pushed off course. Tactically this is important when assessing when to tack or gybe to round a mark or clear an obstruction or headland.



Your Maxi Display automatically calculates this information using information from your GPS, boat speed and compass. The calculated set angle is rounded to the nearest ten degrees.



Set and Drift as calculated includes the effect of both tide and leeway. Therefore the value will be different on opposite tacks, depending on whether the boat is sailing into or against the tide. This will be especially noticeable when the tidal effect is small.



In conditions of little tide, this calculation is very sensitive to inaccuracies in the calibration of your speed and compass transducers. It is not recommended that you rely on the accuracy of this calculation in situations where the tide speed is less than one Knot (a flashing indicator will alert you if the calculated values are uncertain). See the full user guide for information on how to maximise the accuracy of the calibration of your speed and heading transducers.

Performance Chapter

If you have an on-board computer connected to your Raymarine Wireless (NMEA) interface, you can display data from the computer on your Maxi Displays using Raymarine proprietary NMEA messages (PTAK). For example, you could calculate and display "Distance to Layline", "Target Speed", "Corrected True Wind", etc.

When such messages are detected on the network, The Performance Chapter, of six free format screens, is automatically added to the chapter rollover.

Many PC navigation packages support Raymarine proprietary (PTAK) sentences, and details of how to use the PTAK interface are available from the Raymarine web site.



Custom data pages are not available on the Dual Maxi Display.

Data Chapters and Pages

CHAPTER	PAGES						
SPEED	SPEED	VMG	VMG-WP	LOG NM	TRIP NM	SPEED	SPEED
CHAPTER	5.00	2.98	4.8		130	8.2	5.4
SPEED	5.0 SPEED	3.8 VMG	4.8 VMG	13.124 LOG	130 TRIP	8.2 SPEED MAX	5.4 SPEED AVG
↓	Boat Speed	VMG to Windward	VMG to Waypoint	Log Distance	Trip Distance	Maximum Speed	Average Speed
DEPTH	DEPTH	DEPTH	DEPTH				
CHAPTER	6.4	2.6	12.4				
DEPTH	6.4 DEPTH	2.6 DEPTH MIN	12.4 DEPTH MAX				
↓	Depth	Minimum Depth	Maximum Depth				
WIND	A WIND	A WIND	T WIND	T WIND	WIND DIR	BEAUF	SHIFT
CHAPTER	7.1	3.5	7.3	5.7	102	3	-0.2
WIND	2.1 WIND APP	0.36 WIND S APP	1.6 WIND TRU	0.48 WIND S TRU	0.57 WIND DIR	5 BEAUF	-0.3 WIND SHIFT
↓	Apparent Wind Speed	Apparent Wind Angle	True Wind Speed	True Wind Angle	True Wind Direction	Beaufort Wind Force	Wind Shift
							T WIND
							18.3
							25 WIND MAX
							Maximum True Wind
NAV	HEADING	TACK	SOG	COG	DRIFT	LAT	LONG
CHAPTER	4.5	1.59	5.0	0.45	0.5	50	50
NAV	0.45 HDG	1.37 TACK	5.7 SOG	0.42 COG	0.5 DRIFT	Not Available on Dual Maxi	Not Available on Dual Maxi
↓	Heading	Tack Course	Speed over Ground	Course over Ground	Drift and Set	Latitude	Longitude
WAYPT	BTH	TURN	COURSE	DTW	CROSS	TIME	
CHAPTER	3.42	-13	3.27	3.2	2.56	1.33	
WAYPT	3.58 BTH	-12 TURN	3.59 COURSE	5.9 DTW	0.19 CROSS	1.49 TIME	
↓	Bearing to Waypoint	Turn	Course to Waypoint	Distance to Waypoint	Cross Track Error	Time to Go to Waypoint	
ENV	SEA	TIME	DATE	POWER			
CHAPTER	8.2	0943	08	12.5			
ENV	+8.0 SEA	0943 TIME	10 DATE	12.5 POWER			
↓	Sea Temperature	Time	Date	Power			
RACE	RACE	LINE	DEPART	AUTO			
CHAPTER	5:00	-13	65	LEG			
RACE	5:00 RACE	-13 LINE	65 DEPART	LEG AUTO			
↓	Timer	Line Bias	Line Distance and Speed	Auto Leg Page			
PERF	Free Format	Free Format	Free Format	Free Format	Free Format	Free Format	
CHAPTER	1	2	3	4	5	6	
	Free Format 1	Free Format 2	Free Format 3	Free Format 4	Free Format 5	Free Format 6	

Only available on the Maxi Display - See page 7



UU074- r ev05